



## UNITED STATES PATENT AND TRADEMARK OFFICE

KD  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,114	09/20/2001	Andrew Bartlett	MCA-460 PC/US	4663
25182	7590	01/02/2004	EXAMINER	
MILLIPORE CORPORATION 290 CONCORD ROAD BILLERICA, MA 01821			MENON, KRISHNAN S	
		ART UNIT	PAPER NUMBER	
		1723		

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/937,114 Examiner Krishnan S Menon	BARTLETT ET AL. Art Unit 1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 06 November 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1,2,4-15,18-20,25 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2,4-15,18-20,25 and 27 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) ____    |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ . | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

Claims 1,2,4-15, 18-20, 25 and 27 are pending.

### ***Response to Amendment***

The amended claims submitted by the applicant on 11/6/03 had been entered.

However, they were not submitted according to the format required by the MPEP.

Applicant is requested to submit all future amendments in the format required by MPEP, the relevant portions of which are copied below as a courtesy.

#### **Amendments to the Claims**

All amendments to a claim must be presented in the form of a rewritten claim.

Any rewriting of a claim will be construed as a direction to cancel the previous version of the claim. See *In re Byers*, 230 F.2d 451, 455, 109 USPQ 53, 55 (CCPA 1956)

(amendment of a claim by inclusion of an additional limitation had exactly the same effect as if the claim as originally presented had been canceled and replaced by a new claim including that limitation). Any rewritten or newly added claim must be submitted in clean form, that is, with no markings to indicate the changes that have been made\*\*>.

If a claim is amended by rewriting the claim with the same number, the amendment < must be accompanied by a marked up version separate from the amendment using applicant's choice of marking system to indicate the changes being made. A parenthetical expression should follow the claim number indicating the status of the claim as amended or newly added, e.g., "amended," "twice amended," or "new," in both the clean version and the marked up version.

A marked up version does not have to be supplied for any added claims or any canceled claims. If a marked up version is supplied to show changes made to amended claims, however, applicant should identify (in the marked up version) any added or canceled claims with a statement, such as, "Claim 6 has been canceled."

A canceled claim can be reinstated only by a subsequent amendment presenting the claim as a new claim with a new claim number. Applicants may submit a clean version (with no markings) of all of the pending claims in one amendment paper.

Applicants may wish to consolidate all previous versions of pending claims from a series of separate amendment papers into a single clean version in a single amendment paper. Providing this consolidation of claims in the file will be beneficial to both the Office and the applicant for patent printing purposes. When rewriting a claim in the clean set, the parenthetical expression, if any, from the claim to be rewritten should not appear in the clean set. Thus, the only time a parenthetical expression should appear in the clean set is when a claim is being amended. See MPEP § 714.13 for submitting a clean set of claims under 37 CFR 1.116 and MPEP § 714.16 for submitting a clean set under 37 CFR 1.312. See also MPEP § 714.22(a).

It is recommended that the following format be used by applicants in complying with the revised amendment practice requirements. The amendment paper should include, in the following order:

- (A) a clean version of the amended (replacement) paragraph(s)/claim(s);
- (B) a remarks section (beginning on a separate sheet); and
- (C) a marked-up version (also beginning on a separate sheet) showing changes

and clearly identified as "Version with markings to show changes made."

The submission of a clean version of all pending claims shall be construed as directing the cancellation of all previous versions of any pending claims. A marked up version would only be needed for claims being changed by the current amendment (see 37 CFR 1.121(c)(1)(ii)). Any claim not accompanied by a marked up version will constitute an assertion that it has not been modified relative to the immediate prior version. Thus, if applicant is not making any amendments to the claims, but is merely presenting all pending claims in clean form, without any underlining and bracketing, a marked up version should not be submitted.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,2,4, 9,10 and 13-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by, or in the alternative, unpatentable under 35 USC 103(a) over Pearl et al (US 5,824,217).

Pearl (217) discloses a filtration device with one or more layers (fig 4) with openings in each layer (28,30-fig 4), and means for establishing leak-tight seal around each of the openings (13,15,21,25-fig 4) with thermoplastic elastomeric material (col 4 lines 12-19); means being integral and formed around the openings with thickness

greater than the filter and extends from at least one side (col 4 lines 25-41; figures 1,4) as in instant claim 1. The sealing means is structures formed on the surface by molding (col 1 lines 7-11) as in instant claim 23.

Pearl (217) teaches a feed screen with plurality of openings having molded gasket of thermoplastic polymer (col 4 lines 12-19) rim, which is thicker than the screen (64-fig 5; col 5 lines 56-65), integral and around the rim (col 4 lines 25-41; figures 1 and 4) as in instant claim 2 and 4, and formed by injection molding (col 1 lines 7-11) as in instant claim 9.

Pearl (217) teaches a filtration module comprising a membrane, a feed screen and a permeate screen, each with ports on their edges, entrance and exits for the feed and permeate streams, with the screen layers having integrally injection molded gaskets thicker than the screens and extending from both sides of the screen (fig 4, 5; col 4 lines 12-19, col 1 lines 7-11; col 5 lines 56-65) as in instant claims 10, 13 and 15. The gasket material is thermoplastic (col 4 lines 12 – 19), and polygonal in shape (fig 5) as in instant claims 14 and 17. The filter layer is of PVdF, polysulfone, etc (col 4 lines 1-5) as in instant claim 21. Sealing rims are also there on the end caps (50-fig 2) as in instant claim 22.

Please note re the newly added limitation “integral” in the instant claims: “...the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice” (*In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965))

2. Claims 1,2,4,10,13,14, 18 and 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by, or in the alternative, under 35 USC 103(a) as unpatentable over Ondrick (US 5,445,737).

Ondrick (737) teaches a multiple layer filter cassette with membranes and filter screen in alternating layers as feed and permeate channels, the layers having holes, with rectangular gaskets of elastomeric materials separating the layers as in instant claims 1,2,4, 10 and 14 (see details in Fig 2 and 4-6; col 3 line 40 – col 4 line 25). The seal is formed around the openings and integral (see figure 3, 80,82,84 etc.) as in claims 1 and 2. The gaskets would serve to vary the thickness of the layers (fig 6) as in instant claim 18 and 19, the gaskets are both sides of the screen as in instant claim 13.

Please note re the newly added limitation "integral" in the instant claims: "...the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice" (*In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965))

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 5-9, 11, 12, 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ondrick (737).

Ondrick (737) teaches every element of claims 5-8, 9, 11, 12, 15 and 25 as described in claims 1,2 and 10 above paragraphs, except the extension of the gasket above the screen (or its thickness) as in instant claim 5-8, 11 and 12, and the gaskets being injection molded or O-rings. It would be obvious to one of ordinary skill in the art at the time of invention to provide sufficient height of the gasket above the screen on both sides to provide effective seal and to have sufficient spacing between the feed/permeate channels and the membrane, which is provided by the height of the gasket, and the actual thickness would depend on the flow rate. Ondrick (737) teaches using staple elastomeric material (col 4 lines 5-10). It would be obvious to one of ordinary skill in the art at the time of invention that gasket material could be obtained in the required shape as injection molded for making them dimensionally accurate instead of cutting from staple material, or they could be O-rings because O-rings are easily available in different standard sizes.

2. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearl (217).

Pearl (217) teaches all the elements of claim 20 with the possible exception of the operating pressure of 50 – 110 psi. It would be obvious to one of ordinary skill in the art at the time of invention to design the structural parts, particularly the end caps, to withstand the filtration pressure required to obtain the desired flow rate and overcome the osmotic pressure, etc.

3. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (US 4,631,130).

Watanabe teaches a filtration device comprising a filter cartridge having a recess formed around a circumference (see 22, 23 – fig 2; col 7 line 68- col 8 line 6) having an elastomeric seal as in the instant claim. Re the integral seal: "...the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice" (*In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965))

#### ***Response to Arguments***

Applicant's argument that Pearl does not teach an integral seal: Please see the rejection, and Pearl col 4 lines 25-30, where it clearly states peripheral rib 9 is forming a first seal. Also please note re integral: "...the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice" (*In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965)).

Applicant's argument re Pearl not appearing to mention the use of formation of gaskets: This argument is not relevant since the formation of the gasket is process: "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-

process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Applicant's argument re the Ondrick ref not showing integral gasket: Part 82, gasket, is integral to part 86, the screen, in figure 3. Also, making a part integral does not make a claim patentable: (*In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965))

### ***Conclusion***

This is a first action after an RCE, and is non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Krishnan Menon  
Patent Examiner

*W.L.WALKER*  
W. L. WALKER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700